[CLAIMS]

[Claim 1]

A vector, for transformation of animals to induce Alzheimer's disease pathology, that contains a gene coding a protein represented by SEQ. ID. No 10 containing C-terminal fragment (CTF) of mutant human amyloid beta precursor protein (APP) in which 698th amino valine (V) of AP751 is replaced with phenylalanine (F).

[Claim 2]

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 1, wherein the vector additionally includes a promoter and polyadenylation region.

[Claim 3]

The vector design for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 2, wherein the promoter is human PDGF-β promoter.

[Claim 4]

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 2, wherein the polyadenylation region is SV40 pA.

【Claim 5】

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 2, wherein the vector additionally includes Kozac sequence between a promoter and a gene coding C-terminal fragment of the mutant human amyloid beta precursor protein.

【Claim 6】

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 2, wherein the vector additionally includes nucleotide sequence coding signal peptide in front of a gene coding C-terminal fragment of mutant human amyloid beta precursor protein.

【Claim 7】

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 6, wherein the nucleotide sequence is represented by SEQ. ID. No 25.

【Claim 8】

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 2, wherein the vector is designed to include human PDGF-β

promoter gene, mutant gene coding an amino acid sequence represented by SEQ. ID. No 3 and SV40 pA in that order, and represented by the cleavage map PDGF-βCTF99(V717F)-pA.

【Claim 9】

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in any of claim 2 ~ claim 7, wherein the vector additionally includes intron between a promoter gene and a mutant gene coding a mutant protein.

【Claim 10】

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 9, wherein the intron is intron B that is derived from human beta-globin gene.

【Claim 11】

The vector for transformation of animals to induce Alzheimer's disease pathology as set forth in claim 9, wherein the vector is designed to include human PDGF-β promoter gene, intron B gene of human beta-globin, mutant gene coding an amino acid sequence represented by SEQ. ID. No 3 and SV40 pA in that order, and represented by the cleavage map PDGF-intron-βCTF99(V717F)-pA.

【Claim 12】

A transgenic mouse with induced Alzheimer's disease pathology generated by introducing the vector for transformation of animals of claim 1.

【Claim 13】

The transgenic mouse with induced Alzheimer's disease pathology as set forth in claim 12, wherein the mouse is Tg-βCTF/B6 showed clinical symptoms of AD such as motor coordination deficit, impaired memory retention, cognitive deficits and increased anxiety (Accession No: KCTC 10609BP).